STAT

WORK STATEMENT FOR
STUDY, DESIGN AND MANUFACTURE
OF VARIABLE ANAMORPHIC
VIEWING SYSTEM

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Prepared by

STAT

1.0 SUMMARY

The work to be performed during this program has been described in a STAT [redacted] proposal entitled, "Proposal for Study, Design and Manufacture of Improved Variable Anamorphic Eyepieces" and an addendum (RFI-50217) to that proposal. The purpose here is to present a work statement reflecting the customer desire for a shortened delivery schedule, and defining in a single document (rather than in two as at present) the program to be followed.

2.0 WORK STATEMENT

Upon receipt of duly executed contract STAT [redacted] will perform the following tasks.

2.1 Investigate the feasibility of the following types of zoom anamorphic eyepieces:

a) Anamorphic variation of the image at the eyepiece focal plane by introduction of cylindrical components below the objective lens image plane.

b) An eyepiece composed completely of cylindrical components with zoom capability in one meridian.

c) Prism anamorphic system used in convergent light at the objective image plane.

2.2 Investigate the feasibility of modifying the Zoom 70 pod to alleviate existing mechanical restrictions to positioning of optical components. Three degrees of modification will be considered.

a) Modification by the customer from instructions furnished

STAT [redacted]

b) Modification requiring return of the instrument.

c) Complete new pod design incorporating only the existing zoom system.

2.3 Design goal specifications are as follows:

a) Basic eyepiece magnification of 10x and/or 5x with variable anamorphic ratio from 1:1 to 1:2.2 (more if possible). Anamorphic ratios of less than 1 will not be considered.

b) The maximum acceptable loss of field will be 15%.

c) Anamorphic direction will be adjustable through 360°.

d) The loss in resolving power on axis will be no more than 20% as compared with a normal eyepiece of comparable magnifying power. Every effort will be made to improve off axis image performance.

e) The new Variable Anamorphic Eyepieces will not increase the height of the eyepoint more than 4 inches above the normal eyepoint position for the Zoom 70.

2.4 Monthly progress reports will be furnished, and a summary report of findings will be submitted at the end of the study phase of the program.

2.5 At the end of the program an anamorphic viewing system will be delivered and operating instructions provided. This will consist of a pair of zoom anamorphic eyepieces or a modified Zoom 70, or a completely new instrument depending on the study results.

3.0 PROGRAM SCHEDULE

Total elapsed time for performance of this task will be nine months. Of this, three months will be used for study, three months for final design and three months for fabrication.